

PPL13 PROJECT NOMINEE FACT SHEET

March 12, 2003

Project Name and Number

Toms Bayou/Rainey Marsh Terracing

Coast 2050 Strategy

Coastwide Common Strategy - Terracing

Project Location

Region 3; Teche/Vermilion Basin; Vermilion Parish, Rainey Wildlife Sanctuary, Fearman Lake, Vermilion Corporation Marsh and in an open water cove by Southwest Pass east of Lake Portage and Dead Man Island.

Problem

During 1958 to 1974 interior wetland loss caused the development of shallow ponds adjacent to the McIlhenny Canal and south of Fearman Lake. Wave erosion has caused approximately 3 feet/year loss along the lake shorelines estimated by Rainey staff. Wind induced erosion also has caused the gradual expansion of Fearman Lake with the erosion of the peninsula. Shoreline wetlands of Dead Man and Tojan Island have been eroding approximately 5 to 7 feet/year based on past GIS analyses and Environmental Workgroup determinations.

The project would reduce shoreline erosion of adjacent wetlands, trap available sediments reducing turbidity and promoting accretion, and create edge habitat.

Goals

The project goal is to create emergent marsh with a high degree of edge, protect adjacent marsh from erosion, and reduce turbidity of inland waterbodies.

Proposed Solution

Approximately 87,500 feet of terracing would be constructed in up to five locations. Terraces would be constructed with a 15 ft crown 1:3 slopes in 2 ft of water. Two rows of smooth cordgrass plugs would be planted on five foot spacing along both sides of the terraces. Potentially one maintenance lift of the terraces would be needed during the project life.

Preliminary Project Benefits

Approximately 60 acres of wetlands would be created from construction of the terraces. Approximately 43 acres of marsh would be protected by reducing shoreline erosion by 50-74%. The project would increase the colonization of submerged aquatic vegetation by reducing water turbidity.

Compatibility with Coast 2050 Criteria

Wetland Elevation/Sustainability

What project features achieve sustainability through vertical accretion? Which protect self-sustaining wetlands? The terraces protect existing self, sustaining wetlands from shoreline erosions. How many net acres of accreted wetlands are sustained over project life? 103 acres.

Ecosystem Influence Area

The project would benefit approximately 1,500 acres of lake and bay bottoms and adjacent marsh.

Structural Framework

The project is designed to help protect lake and bay rims. Less than 25% of the ecosystem influence area would be benefitted for more than 20 years based on the created acres and maintenance event.

Infrastructure

The project would have no impact on critical and/or non critical infrastructure within the ecosystem influence area as defined in the Coast 2050 criteria.

Organism and Material Linkages

The project allows a natural level of organism and material exchange consistent with the sustainability of the ecosystem.

Coast 2050 Habitat Objectives

Marshes in the area are mapped by Chabreck '88 as brackish. The habitat objective for the majority of the ecosystem influence area is intermediate marsh. Therefore, the project will not achieve the Coast 2050 habitat objective for most of the ecosystem influence area.

Project Synergy

The project would not provide not have synergistic effects with other approved CWPPRA projects.

Preliminary Construction Costs

\$2,804,000 (construction + 25% contingency)

Preparer of Fact Sheet

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